UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
901 NORTH 5TH STREET
KANSAS CITY, KANSAS 66101
30 SEP 2004

Tri-County Public
KS0001402320
Prior 2-0
Other 9-30-04
07KS

ENFORCEMENT ACTION MEMORANDUM

SUBJECT: Request for Potentially Responsible Party (PRP)-Lead Non-Time-Critical Removal Action at the Tri-County Public Airport Site, Morris County, Kansas

FROM: Don Lininger, On-Scene Coordinator
Enforcement/Fund-Lead Removal Branch

THRU: Kenneth S. Buchholz, Chief
Enforcement/Fund-Lead Removal Branch

TO: Cecilia Tapia, Director
Superfund Division

CERCLIS ID:	KS0001402320
SITE ID:	O7XS
CATEGORY OF REMOVAL:	Non-Time-Critical
NATIONALLY SIGNIFICANT:	No

I. PURPOSE

The purpose of this Action Memorandum is to request approval for a non-time-critical removal action at the Hangar 1 area portion of the Tri-County Public Airport (TCPA) site located in rural Morris County, Kansas. The removal action will consist of excavation and off-site disposal of contaminated soils within an engineered disposal cell. Property adjacent to the Hangar 1 area where the soil contains trichloroethylene (TCE), dichloroethylene (DCE), or vinyl chloride concentrations that are equal to, or greater than, preliminary remediation goals will be included in the removal action. It is anticipated that excavated soils will not be treated prior to disposal. Soils would be excavated and transported directly off-site with minimal on-site staging and storage. The excavated soil may be used as daily cover material at the disposal facility, providing for beneficial use of the soil. Areas subject to excavation would be backfilled with clean fill material which would be properly compacted and placed at an elevation suitable for use as a sub-base for the replaced surface. Original surfaces (concrete, gravel, etc.) would be replaced and suitable grading would be maintained or improved, if appropriate, to facilitate surface runoff.

II. SITE CONDITIONS AND BACKGROUND

A. Site Description

1. Nature and Extent of Contamination

Investigations conducted by the United States Army Corps of Engineers (USACE), the U.S. Environmental Protection Agency (EPA), and the Kansas Department of Health and Environment (KDHE) have detected TCE in groundwater at concentrations above the federal maximum contaminant level (MCL) of 5 micrograms per liter (µg/L) in drinking water supplies. The TCE plume extends about 5 miles to the northwest of the airport and has contaminated 23 private drinking water wells. The TCE contamination in the drinking water supplies is currently being removed by whole house filtration units using carbon. The highest concentrations of TCE and its degradation products (cis-1,2-dichloroethene and vinyl chloride) were detected in soil in the vicinity of Hangar 1 at levels above the Kansas Tier 2 risk-based numbers (RSK).

In 1998 the EPA initiated an Expanded Site Investigation/Remedial Investigation (ESI/RI) at the site with fieldwork conducted in two phases. Phase 1 included a spring/seep survey, off-site sampling, and a geophysical survey of two areas on-site. Phase 2 included source and pathway characterization on and off the site. The primary objectives of Phase 2 were to verify that a release of TCE had occurred, determine the source areas, and characterize the vertical and areal extent of contamination. The characterization of potential source areas involved the collection of 312 field analytical soil samples, as well as the collection of 67 soil samples which were submitted for laboratory analysis. The characterization of groundwater included the installation and sampling of 30 monitoring wells on and off the site in three aquifers, the sampling of 10 USACE wells, and the sampling of 43 water supply wells in the surrounding area. The characterization of surface water included the collection and analysis of 17 surface water samples and 9 spring and seep samples from the Clarks Creek drainage basin.

The highest surface soil concentration of TCE detected during the ESI/RI was 88 micrograms per kilogram (µg/kg) from the northwest side of Hangar 1. The highest soil contamination at Hangar 1 was detected at a depth of 1-2 feet beneath the concrete adjacent to the northwest corner of the hangar with TCE detected at a concentration of 2,300,000 µg/kg. In the Hangar 1 area, cis-1,2-DCE concentrations ranged from 34 µg/kg to 140,000 µg/kg and vinyl chloride concentrations ranged from 48 µg/kg to 12,000 µg/kg.

The ESI/RI analytical results verify that off-site water supply wells to the north and northwest of the site have been impacted by volatile organic contaminants (VOCs), primarily TCE. In water supply wells, TCE was detected in concentrations ranging from 1.8 to 280 µg/L. The highest TCE concentration detected in a water supply well used for human consumption was 56 µg/L located north of the site. The EPA believes the soil contamination in the area of Hangar 1 was, and continues to be, a source of the groundwater contamination.

Monitoring wells installed during the ESI/RI verified that the site is underlain by a succession of shale and limestone aquifers. Four separate ground water aquifers lie beneath the site. These aquifers are used for private drinking water and agricultural purposes. Analytical results from the off-site monitoring well samples indicate that the TCE is migrating northwest in the Cresswell, Stovall, and Towanda aquifers. VOCs, including TCE, were not detected in the background monitoring wells installed in the site. The majority of the on-site monitoring wells contained VOCs and, in particular, TCE. Water level data demonstrated that the predominant horizontal groundwater flow direction is the north-northwest in the direction of Latimer. There are no municipal systems drawing ground water from within 4 miles of the airfield; however, 92 private wells have been identified within this area. The results from springs and seeps demonstrated the release of TCE to surface water with TCE concentrations ranging from 0.699 to 12.7 µg/L. Results of water supply well and spring and seep samples verify the presence of a corridor of contaminated groundwater to the north and northwest of the site.

In December, 2000 a Consent Order was signed by the Raytheon Aircraft Company (RAC) and the KDHE for purposes of conducting a Remedial Investigation/Feasibility Study (RI/FS). Under the KDHE Consent Order, a total of 133 soil borings were completed as part of the RI. In the area of Hangar 1, sixty-five (65) soil samples were obtained from 21 soil borings. The primary contaminants detected were TCE and its degradation products, cis-1,2-DCE and vinyl chloride. Vinyl chloride was detected at 15,000 µg/kg at 1 foot below the concrete pad of the loading dock. The KDHE RSK for soil exposure in a non-residential setting is 540 µg/kg. Twenty-three samples had detections of vinyl chloride above the soil to ground water protection pathway RSK of 20 µg/kg. The highest vinyl chloride concentration was 24,000 µg/kg at 12 feet at the northwest corner of Hangar 1. Concentrations of DCE ranged from 660 to 300,000 µg/kg in the same area. The soil to ground water protection pathway RSK for DCE is 800 µg/kg. Concentrations of TCE ranged up to 300,000 µg/kg. The soil to groundwater protection pathway RSK for TCE is 200 µg/kg. These results confirm the results reported in the ESI conducted by the EPA in 1998.

The Tetra Tech EM Inc. (Tetra Tech) Superfund Technical Assessment and Response Team (START) was tasked by the EPA Region 7 to conduct removal assessment activities at the TCPA site. These assessment activities were conducted in May 2003 and were focused on the Hangar 1 source area. Subsurface soil, air, and ground water samples were collected and an Soil Vapor Extraction (SVE) pilot was conducted during the removal assessment. TCE, cis-1,2-DCE and vinyl chloride were detected in the soil samples. TCE was detected at a maximum concentration of 20 µg/kg. Vinyl chloride was detected at 2,500 µg/kg and DCE at 970 µg/kg. The total contaminant mass in the area north of Hangar 1 was estimated from this data with values of 160 pounds of vinyl chloride, 2,817 pounds of TCE, and 1,179 pounds of cis 1,2-DCE. In the perched ground water samples collected TCE was detected at 15,000 µg/l, 1,2-DCE at 55,000 µg/l, and vinyl chloride at 31,000 µg/l.

Two samples were collected for Toxicity Characteristic Leaching Procedure (TCLP) analysis from the areas with the highest field photoionization detector (PID) readings for VOCs

during the removal assessment. The TCLP results from these samples did not exceed regulatory levels for a characteristic hazardous waste.

TCE was detected in two air samples located in the U.S. Stone facility. TCE was detected at a concentration of 0.47 micrograms per cubic meter ($\mu g/m^3$) and 1,2-DCE at 0.12 $\mu g/m^3$ in the northwest office. TCE was detected at a concentration of 0.22 $\mu g/m^3$ in the northeast corner of the building. TCE was not detected in the other two samples which were collected in the northwest corner of the building and the break room.

Between June 1, 2004, and July 2, 2004, KDHE and EPA personnel conducted field activities in the Hangar 1 area. One hundred nineteen (119) soil samples were collected from forty nine (49) grid locations on the north and west side of Hangar 1 to better define the extent of contamination to be excavated. The City of Herington also identified a potential borrow area to be utilized as backfill for the excavated area. The borrow area is located approximately one thousand three hundred (1,300) feet northeast of Hangar 1. Ten (10) soil samples were collected from five (5) locations in the borrow area to determine if the soil is suitable for backfill.

2. Physical Location

The TCPA site is located approximately 7 miles east of the city of Herington, Morris County, Kansas. The geographic coordinates at the approximate center of the site are latitude 38° 41' 46.4" N and longitude 96° 48' 41.7" W. The TCPA site is located on the Delavan Kansas Quadrangle 7.5-minute Topographic Map within the Sections 31 and 32, Township 15 South, Range 6 East, and Sections 5 and 6 Township 16 South, Range 6 East. To reach the site from U.S. Highway 56: take County Road 2600 located approximately 0.25 mile west of Delavan, Kansas, and go north approximately 2.75 miles and the airport lies on the east side of the county road.

The total area of the Tri-County Airport site property, including the open and former runways, is approximately 3.5 square miles. The site property excluding the runways is irregular, but generally takes the shape of a rectangle approximately 0.5 miles east to west by 1.5 miles north to south. The nearest communities are Herington approximately 7 miles to the west, Delavan approximately 2 miles to the south, and Latimer approximately 2.5 miles to the northwest.

3. Site Characteristics

The TCPA facility comprises approximately 3.5 square miles and is located in Morris County, Kansas. The TCPA was originally constructed as the Herington Army Airfield (HAAF) in 1942 and was officially declared surplus in 1946. The airfield property and buildings were quit-claimed by deed to the City of Herington in 1948. Most of the 300 buildings and structures associated with HAAF have been razed or removed. From 1948 to the present, the site has been used by a number of companies for various purposes. Operations have included aircraft restoration, plane storage, and manufacturing of farm implements, black powder, roofing

materials, and stone cutting. From 1950 to the early 1960s, Beech Aircraft (Beech) leased all four hangars and several other buildings at the site. In 1980, RAC acquired Beech. Operations conducted by Beech at the site consisted of a chromium conversion coat process, vapor degreasing, painting, paint stripping, wing-tank manufacturing, aircraft refurbishing, aluminum processing, aircraft starter generator manufacturing, and steel wing-tank shipping container manufacturing. According to RAC, two TCE degreasers were used by Beech, one in Hangar 1 and one in Hangar 4. The TCE was stored in 55-gallon drums in a building located northwest of Hangar 1. The specific storage building and building identification number is not known. The disposal method and usage amounts of TCE by Beech are not known. Beech also reportedly used a paint stripper of unknown chemical identity to remove paint from airplane wings in the northwest corner of Hangar 1.

U.S. Stone Industries is located in the northern most hangar (Hangar 1) and initiated operations at this facility in December 2001. U.S. Stone Industries manufactures stone products at the facility from quarried stone blocks. Production includes cutting, surfacing, splitting, and shaping stone to dimensions specified by U.S. Stone Industries clients. Three lagoons are utilized for treating waste water produced from stone cutting operations. The wastewater contains stone cutting materials in suspension and the lagoons are used for purposes of settling the stone fines out of the water prior to discharge. The lagoons are located south of the U.S. Stone Industries facility.

At the TCPA site the overburden of loess and highly weathered bedrock ranges in thickness from 8 to 15 feet. The uppermost bedrock unit underlying the overburden at higher elevations on the south and central portions of the site was the Herington Limestone. Aquifers encountered at the site include the Cresswell, Stovall, and Towanda Limestone Aquifers which have a primary horizontal flow direction to the northwest. Perched water is found in soils at the TCPA Hangar 1 area.

4. Release or Threatened Release into the Environment of a Hazardous Substance, or Pollutant or Contaminant

Hazardous substances as defined by Section 101 (14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, have been detected in the soil and groundwater at the site. These include TCE, DCE, and vinyl chloride. The term release, as defined in CERCLA Section 101 (22), means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment. Samples collected during the EPA ESI/RI detected the highest on-site VOC soil concentrations near the Hangar 1 source area with TCE concentrations ranging from 6 µg/kg to 2,300,000 µg/kg. The TCE contamination detected in various samples exceeded the KDHE Tier 2 RSK soil to groundwater protection pathway value of 200 ug/kg. Numerous monitoring well and residential well samples contained contaminants at concentrations significantly above the MCL. The 1998 EPA ESI/RI analytical results verify that off-site water supply wells to the north and northwest of the site have been impacted by VOCs, primarily TCE. In water supply wells, TCE was detected in concentrations ranging from 1.8 to

280 µg/L. During the 1998 EPA ESI/RI, groundwater samples were collected from 40 monitoring wells located both on and off the site and TCE was reported in 31 of the monitoring wells. Approximately 23 water supply wells used for human consumption exceed the MCL for TCE.

5. National Priorities Listing (NPL) Status

The site was proposed to the National Priorities List on July 27, 2000, based on evidence of groundwater contamination by chlorinated solvents.

6. Maps, Pictures, and Other Graphic Representations

Attached is Figure 1 which identifies the location of the site. Figure 2 identifies the approximate extent of soil contamination in the Hangar 1 area that requires excavation.

B. Other Actions to Date

1. Previous Actions

On November 3, 1997, the EPA issued an Action Memorandum for the TCPA site which made the determination that a release of hazardous substances had occurred. TCE and/or carbon tetrachloride were found in 20 private drinking water wells above the MCLs of 5 µg/L. The Action Memorandum stated that the EPA was the only immediate avenue for providing whole house treatment systems and/or bottled water for those wells where the MCL for TCE was exceeded. The objective of the removal action was to reduce TCE exposure to residents with contaminated drinking water wells. Under the provisions of the Action Memorandum the EPA provided bottled drinking water to approximately eighteen residences where drinking water was found to exceed the MCL for TCE of 5 µg/l. The bottled water was provided from November 1997 until January 24, 2001. One residence, with concentrations of TCE over 100 µg/l, was provided with a whole house carbon filtration system as the result of an October 6, 1997, health consult from the Agency for Toxic Substances and Disease Registry (ATSDR).

2. Current Actions

In March 2000 the RAC and the EPA entered into an Administrative Order on Consent (AOC), Docket No. CERCLA-7-2000-0013 pursuant to Sections 104 and 122 of the CERCLA. The 2000 AOC required that the RAC provide water treatment systems for residences with water supply wells exceeding the maximum MCL for TCE and degradation products. The objective of the removal action was to reduce TCE exposure to residents with contaminated drinking water wells. The systems which utilized carbon filtration were installed in 23 residences whose drinking water source exceeded the MCL for TCE. Under this agreement, the RAC was to maintain the water treatment systems and conduct quarterly monitoring of the treatment systems and additional residential water supply wells, to assure that all residences with

water that exceeded the MCL for TCE had water treatment systems installed. Project costs have not been provided to the EPA.

C. State and Local Authorities' Roles

1. State and Local Actions to Date

In May 1996, the KDHE completed a preliminary assessment/screening site inspection (PA/SSI) of the TCPA site in response to the detection of TCE during the USACE investigation. This study included a background search for potential sources, the sampling of selected USACE groundwater monitoring wells, and a limited investigation of the surface water, soil, and air pathways.

The KDHE conducted a Supplemental Sampling Assessment (SSA) at the TCPA in 2001. The SSA was conducted to evaluate three potential source areas identified in previous investigations including the Hangar 1 area. The areas sampled were advanced at, or immediately downslope, of Hangar 1.

In December, 2000 a Consent Order was signed by the RAC and the KDHE pursuant to the Kansas Environmental Response Act (K.S.A. 65-32a et seq). for purposes of conducting a Remedial Investigation/Feasibility Study (RI/FS). The objectives of the RI/FS are: 1) determine the nature and areal extent of environmental contamination, 2) evaluate the threat to public health and environment, 3) characterize geological properties of the affected soils and aquifers, and 4) evaluate remedial alternatives for corrective action. On September 24, 2001, the KDHE approved RAC's Work Plan to conduct a RI/FS. As of April 2003 a total of 133 soil borings had been completed as part of the RI. Additional RI/FS work is ongoing with the KDHE oversight.

2. Potential for Continued State/Local Response

The state lacks the resources to conduct the removal action to address a source of groundwater contamination at the site. The KDHE is expected to remain involved in future activities at the site including additional removal assessments and long-term operation and maintenance. The EPA will coordinate all federal activities associated with this removal action with the KDHE and local officials.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

The site conditions pose a significant threat to the public health and welfare that meet the criteria for a removal action under 40 C.F.R. 300.415(b)(2) of the National Contingency Plan (NCP).

A. Threats to Public Health or Welfare

300.415(b)(2)(i) – Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances, or pollutants, or contaminants.

Samples collected during the EPA ESI/RI detected on-site VOC soil concentrations near the Hangar 1 source area with TCE concentrations up to 2,300,000 µg/kg. The TCE contamination detected in various samples exceeded the KDHE Tier 2 RSK soil to groundwater protection pathway value of 200 µg/kg. Numerous monitoring well and residential well samples contained contaminants at concentrations significantly above the MCL. The EPA ESI/RI analytical results verify that off-site water supply wells to the north and northwest of the site have been impacted by VOCs, primarily TCE. During the EPA ESI/RI, groundwater samples were collected from 40 monitoring wells located both on-site and off-site. TCE was reported in 31 of the monitoring wells. TCE was detected in 25 water supply well samples, and the concentration in 22 of the samples exceeded the TCE MCL of 5 µg/L. Approximately 23 water supply wells used for human consumption exceed the MCL for TCE.

Results from the EPA ESI/RI indicated that eight spring or seep samples contained TCE ranging in concentrations from 0.699 µg/L to 12.7 µg/L. Seven of the contaminated springs and seeps lie to the northwest of Latimer and the remaining contaminated seep is located to the northeast of the community. The results show that the groundwater discharging to surface water in the Clarks Creek drainage basin has been impacted by TCE, the likely source of which is the TCPA site.

Hazardous substances as defined by CERCLA have been detected in the soil and groundwater at the site which include TCE, DCE, and vinyl chloride. Breathing small amounts of TCE may cause headaches, lung irritation, dizziness, poor coordination, and difficulty concentrating. Breathing large amounts of TCE may cause impaired heart function, unconsciousness, and death. Breathing it for long periods may cause nerve, kidney, and liver damage. Drinking small amounts of TCE for long periods may cause liver and kidney damage, impaired immune system function, and impaired fetal development in pregnant women, although the extent of some of these effects is not yet clear. TCE is characterized as being highly likely to produce cancer in humans.

300.415(b)(2)(ii) -- Actual or potential contamination of drinking water supplies or sensitive ecosystems.

Actual exposure of 23 private drinking water wells exceeding the MCL for TCE has been documented by the EPA and the RAC data. Release of TCE to a surface water body has occurred as evidenced by the eight spring or seep samples with TCE ranging in concentrations from 0.699 µg/L to 12.7 µg/L.

B. Threats to the Environment

300.415(b)(2)(iv) – High levels of hazardous substances or pollutant or contaminants in soils largely at or near the surface, that may migrate.

Concentrations of TCE and vinyl chloride at the Hangar 1 area have been detected in surface soil at a depth of one foot below ground surface (bgs) under concrete at levels up to 2,300,000 µg/kg. TCE contamination detected in various samples exceeded the KDHE Tier 2 RSK soil to groundwater protection pathway value of 200 µg/kg. Vinyl chloride has been detected in surface soil at a depth of one foot bgs at 15,000 µg/kg and at a depth of three feet bgs at 23,000 µg/kg. Vinyl chloride contamination detected in various samples exceeded the KDHE Tier 2 RSK soil to groundwater protection pathway value of 20 µg/kg. TCE and vinyl chloride have been detected in perched water in the vicinity of Hangar 1. TCE was detected at concentrations up to 1000 µg/l and vinyl chloride to 32,000 µg/l. TCE migrating to groundwater has contaminated drinking water wells.

300.415(b)(2)(vii) -- The availability of other appropriate federal or state response mechanisms to respond to the release.

The KDHE entered into negotiations for a state Consent Order with the RAC to prepare an Engineering Evaluation/Coast Analysis (EE/CA) and conduct the response selected in the EE/CA. These parties failed to reach an agreement. In a letter dated February 10, 2003, the KDHE requested that the EPA undertake a removal action to address extremely contaminated soils at the Tri-County Airport Site, Hangar 1 area.

IV. ENDANGERMENT DETERMINATION

The actual release of a hazardous substance at this site, if not addressed by implementing the response action selected in this Action Memorandum, presents an imminent and substantial endangerment to the health of the public that comes in contact with the site and to public welfare and the environment. Federal and state agencies are recommending that immediate response actions be taken to reduce potential exposure.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1. Engineering Evaluation/Cost Analysis

The EPA Region 7 Superfund Division prepared an EE/CA, which identified proposed removal action alternatives for contaminated soil at the Hangar 1 area of the TCPA site in Morris County, Kansas. The EE/CA was prepared under CERCLA to provide an organized and systematic framework for evaluating the best response technologies for addressing contaminated soil. The EE/CA evaluated six removal action alternatives to address VOCs in soil. These six removal action alternatives are described in the EE/CA and were evaluated based

on effectiveness, implementability, and cost. Based on the comparative analyses of the corrective action alternatives, the recommended corrective action is excavation with off-site disposal of contaminated soils.

2. Proposed Action Description

The proposed action involves the excavation and off-site disposal of contaminated soils within an engineered disposal cell. Excavated soils will not be treated prior to disposal. Soils will be excavated and transported directly off-site with minimal on-site staging and storage. The proposed action will involve off-site disposal at an approved disposal facility. The excavated soil may be used as daily cover material at the disposal facility providing for beneficial use of the soil from the TCPA site. Areas subject to excavation will be backfilled with clean fill material which will be properly compacted and placed at an elevation suitable for use as a sub-base for the replaced surface. Original surfaces (concrete, gravel, etc.) will be replaced and suitable grading will be maintained or improved, if appropriate, to facilitate surface runoff.

The soil source area was delineated based on contaminants of concern (COC) concentrations detected in on-site soil that exceeded Preliminary Remediation Goals (PRGs) (Table 1). Soils with COC exceeding the PRGs will be excavated during the proposed action. Excavation dimensions for the soil source area are shown in Figure 2, which was developed from investigation results for the COC. On the basis of this information, it is estimated that the area of contamination will be excavated to a maximum depth of approximately 16 feet bgs, which would be approximately 33,704 cubic-yards (yd^3) of soil. Excavation will not include bedrock material. Excavation will include removal of soils in an area north and west of Hangar 1. Contaminated soil beneath Hangar 1 will not be excavated. The excavation pit will be de-watered during field activities. Collected water will be treated as appropriate prior to discharge.

Confirmation sampling will be conducted to assure that soils containing COC above PRGs have been removed. Upon completion of the excavation, confirmation sidewall samples will be collected from the perimeter cells and analyzed to verify the PRGs for COC-contaminated soils have been achieved. The total number of samples will vary, depending on the size of the actual excavation. Where appropriate, samples will be collected from the bottom of excavations. All site sampling activities for comparison to the cleanup level will be conducted in accordance with an approved Quality Assurance Project Plan (QAPP).

Monitoring and site control measures, such as dust suppression by spraying water and storm water runoff control measures, will be implemented to ensure that removal activities do not expose nearby populations and site workers to harmful levels of contaminants.

2. Contribution to Remedial Performance

The proposed action will address a source of the groundwater contamination, mitigating the direct contact threat posed by exposure to contaminated groundwater. The proposed action will be consistent with future remedial actions that may be necessary to address groundwater contamination.

4. Applicable Relevant and Appropriate Requirements (ARARs)

Section 300.415(j) of the NCP provides that fund-financed removal actions under CERCLA Section 104 and removal actions pursuant to CERCLA Section 106 shall, to the extent practicable considering the exigencies of the situation, attain ARARs under federal environmental, state environmental, or facility-citing laws. The following site-specific ARARs have been identified for this action:

Resource Conservation and Recovery Act (RCRA) - Subtitle C of RCRA, 42 U.S.C. Section 6901, et seq., 40 C.F.R. Part 260, et seq. and implementing federal and state regulations for contaminated soil that exhibit the characteristic of toxicity and are considered RCRA hazardous waste. The EPA has concluded that the TCE-waste in the soil and groundwater is not a listed hazardous waste. Based on soil analytical results at the TCPA Hangar 1 area, it is unlikely that excavated soils will contain levels of TCE, DCE, or vinyl chloride that exceed the TCLP level. Two samples were collected for TCLP analysis from the areas with the highest field photoionization detector (PID) readings for VOCs during the removal assessment. The TCLP results from these samples did not exceed regulatory levels for a characteristic hazardous waste. The hazardous waste determination requirements in 40 C.F.R. 261.24 are applicable.

Occupational Safety and Health Act Standards - 29 C.F.R. Part 1910 and Part 1926.20 - 1926.26, will be applicable to all actions.

Clean Water Act (33 U.S. Code 1251 to 1376), as amended by the Water Quality Act of 1987, provides authority for each state to adopt water quality standards designed to protect beneficial uses of each water body and requires states to designate uses for each water body. Kansas Water Pollution Control Regulations under Kansas Administrative Regulations (K.A.R). 28-16 provide for definition of pollution and statutory authority to regulate and protect waters of the state. For response actions at the TCPA site involving construction and excavation of contaminated soil, engineering controls designed to prevent discharges that may affect the water quality of nearby surface waters will be implemented. A specific National Pollutant Discharge Elimination System (NPDES) permit will not be required if remediated groundwater is discharged on-site. Discharges would meet the substantive requirements for storm water and wastewater discharge including monitoring requirements established by K.A.R. 28-16.

In a March 28, 2003, letter the KDHE identified state ARARs. Kansas Ambient Air Quality Pollution Control Regulations under K.A.R. 28-19 provide emission standards for listed hazardous air pollutants and state air quality standards to protect public health. Vinyl chloride is a regulated pollutant under K.A.R. 28-19 which sets a significant emission level potential-to-emit (PTE) of 1 ton/year. TCE and DCE are not specifically regulated under K.A.R. 28-19 and would be in the VOC category of regulated pollutants which has a state permit PTE threshold of 40 tons/year. It is anticipated that neither the vinyl chloride nor the VOC emission standards from any of the alternatives evaluated in this EE/CA would be exceeded.

The Risk Based Standards for Kansas are "to be considered" (TBC) standards for the appropriate site related contaminants. This includes the soil to groundwater protection pathway and non-residential soil pathway values for TCE, DCE and, vinyl chloride.

5. Project Schedule

On-site removal activities are anticipated to begin in the fall of 2004 and require approximately three months to complete. If other areas are discovered which require additional work, this may affect the completion time.

6. Post-Removal Site Controls

The excavation would be backfilled and the site restored. No equipment would be installed or require ongoing operation and maintenance and no post-removal site controls would be required.

B. Estimated Costs

The PRP will implement and complete the work described in this Action Memorandum.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Delayed action will continue to cause contaminated soils in the Hangar 1 area to leach into the Cresswell, Stovall, and Towanda aquifers which are sources of drinking water.

VII. OUTSTANDING POLICY ISSUES

None.

VIII. ENFORCEMENT

There is an Enforcement Addendum for this site. For NCP consistency purposes, it is not part of this Action Memorandum.

IX. RECOMMENDATION

This decision document represents the recommended removal action for the contaminated soil at the TCPA site, Morris County, Kansas. The removal action was developed in accordance with CERCLA, as amended, and is not inconsistent with the NCP. This decision is based on the Administrative Record for the site.

Conditions at the site meet NCP Section 300.415(b) criteria for a removal action and I recommend your approval of the proposed PRP-lead removal action.

For purposes of this removal action, I recommend that Bill Bunn be designated as an on-scene coordinator (OSC) for this removal action, if a PRP conducts the response action.

Approved:

Cecilia Tapia
Director
Superfund Division

9/30/04
Date

Attachments

Table 1

PRELIMINARY REMEDIATION GOALS
TRI-COUNTY PUBLIC AIRPORT SITE

Chemical	Surface Soil (ug/kg) [a]	Sub-surface Soil (ug/kg) [b]
cis-1,2-Dichloroethylene	180,000	800
trans-1,2-Dichloroethylene	290,000	1,500
Trichloroethylene	98,000	200
Vinyl Chloride	540	20

[a] - Risk Based Standards for Kansas, RSK Manual - 3rd Version, March 1, 2003 - Non- residential scenario, Soil Pathway

[b] - Risk Based Standards for Kansas, RSK Manual - 3rd Version, March 1, 2003 - Soil to Groundwater Protection Pathway

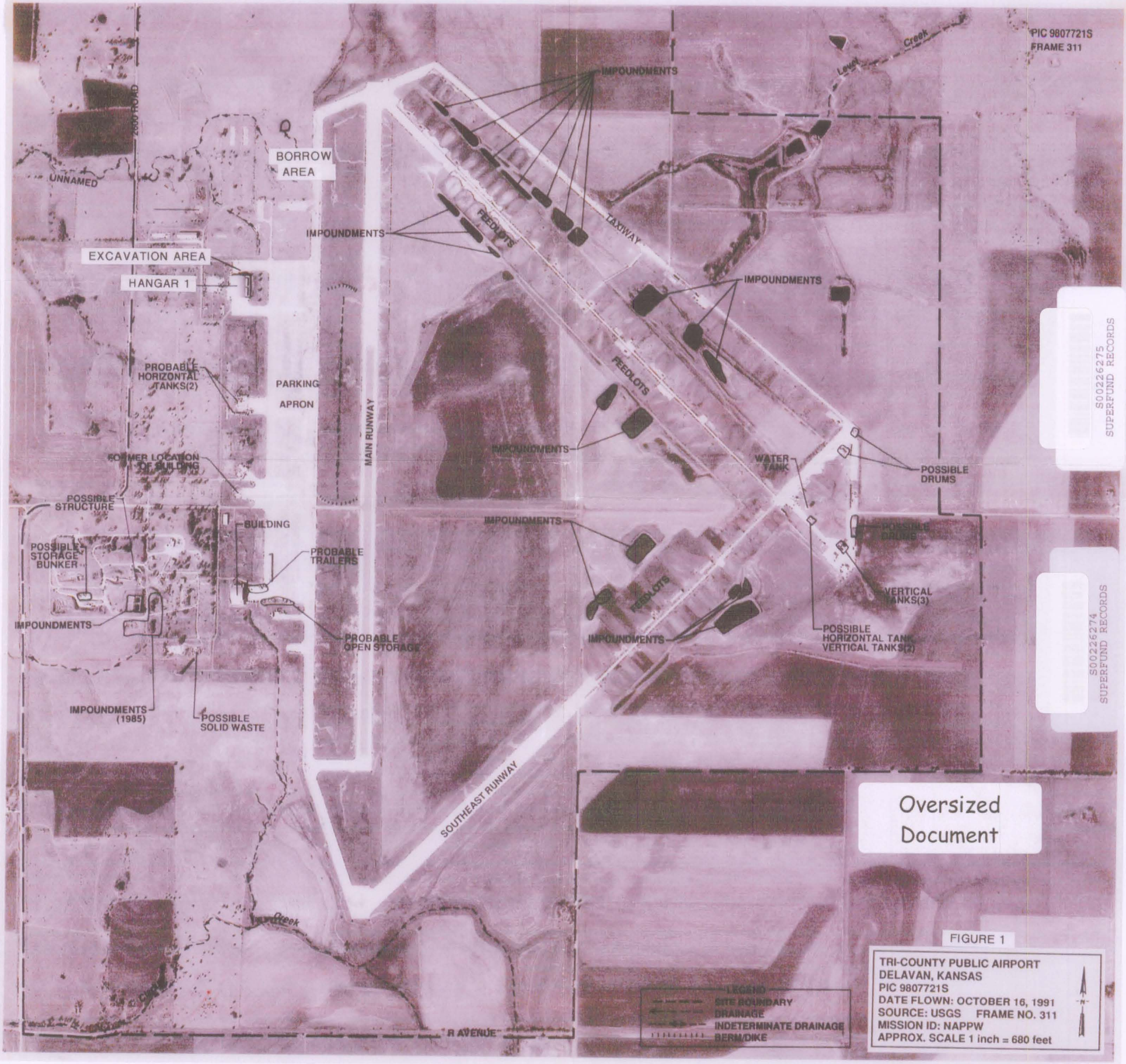

FIGURE 1